A NEW SPECIES OF FRANKLINIELLA ON HEMEROCALLIS

(THYSANOPTERA, THRIPIDAE)

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While *Hemerocallis* had long been thought to be quite free from injurious insect pests, it now develops that at least three species of *Frankliniella*—i.e., *fusca* (Hinds), *tritici* (Fitch), and the new species described below—injure the flowers. It appears unusual that no brachypterous representatives of the new species were collected, since short-winged individuals of the closely related *fusca* (Hinds) are commonly found in the summertime.

Frankliniella hemerocallis, new species

Female (macropterous holotype).—Length (fully distended) 1.55 mm. Very dark blackish brown, the head and apex of abdomen darkest; femora and mid and hind tibiae dark brown, fore tibiae brownish in basal two-thirds, yellow apically; mid and hind tibiae at apices and all tarsi yellow; ocellar crescents dark crimson; antennal segments I and II lighter brown than body, with II distinctly lighter at apex, III and IV golden yellow, obscurely dusky at apices, V, except yellowish base, and VI-VIII brown; forewing, except hyaline band at base, dark gray brown, hind wing clear; body setae dark brown.

Head distinctly wider than long, back of eyes with 4-5 transverse anatomosing lines; cheeks subserrate in outline, subparallel but slightly narrowed medially; interocellar setae always located between line tangent to the outside and inside margins of lateral and median ocelli; 3 pairs of microsetae between the very short postoculars; antenna VI narrowed to base where it is 13 μ in diameter, both of its sense cones about attaining apex of VII.

Pronotum with distinct transverse anastomosing lines on anterior third and at rear with a few similar lines of which 1 or 2 are more distinct than the others, dorsum between those areas very indistinctly, similarly sculptured, more distinctly so laterally; 1 pair of microsetae between anterior marginals, the latter only about half as long as anterior angulars; disc of pronotum with very few microsetae (only 3 pairs visible in holotype); posterior margin of pronotum between posterior angulars with 5 pairs of setae, the next to innermost pair about 28 μ long but slender, the others short and weak. Costa of forewing with 21 setae, fore vein with 18, hind vein usually with 12-14 setae (only 1 of 20 specimens with less than 12 setae on each wing). Metanotum with close, longitudinal anastomosing lines, except medially on basal half where they are polygonal.

Abdomen with sub-basal apodeme of terga very distinct, broad, almost black, behind each one a single complete, strong, transverse line; terga sculptured with less distinct transverse anastomosing lines at sides, these ending abruptly so that the median third shows no sculpture; comb on tergum VIII complete, composed of short teeth on broad, triangular

bases; exceptionally, a few teeth in the middle are very short or are absent from the triangular bases.

Measurements (in microns): Head, median length 122, greatest width across eyes 176, greatest width behind eyes 174, least basal width 158, distance between interocellar setae 34 (32-40); prothorax, median length 128, greatest width 228; pterothorax, median length 254, greatest width 284; setal lengths: interocellar 68, anterior marginal 43, anterior angular 80, forwardly projecting seta at anterior angle 30, posterior angular, inner 88, outer 76; on tergum IX, inner 117, median 130, outer 132, on X, inner 136, outer 140.

Antenna:	1	2	3	4	5	6	7	8
	26	37	52	47	37	52	11	11

Male (macropterous allotype).—Length (slightly distended) 1.06 mm. Very similar to the female, but somewhat lighter in color and with antenna IV more distinctly dusky apically; yellow apically on tibiae more extensive, tibiae somewhat lightened in color basally, all femora similarly lightened at extreme apices and mid and hind femora also basally; antennal segments only slightly shorter than in female; sculpture less apparent; comb on tergum VIII almost completely wanting; glandular areas present on sterna III-VII, these narrow, that on IV, 12 (—13) x 80 (—94) μ; median pair of subapical setae on tergum IX 30 μ long, hardly stouter than other setae; a short weak seta on each side laterocaudad of the median pair.

Type locality.—Lake Geneva, Wisconsin.

Host.—Flowers of *Hemerocallis.*

Type Catalog No. 58495, United States National Museum.

Described from 47 females and 8 males, collected by Professor E. J. Kraus, Department of Botany, University of Chicago.

This species is close to *fusca* (Hinds), which in the female is smaller (the largest measure, fully distended, was only 1.43 mm.), much lighter in color in the summer form (overwintering females may be dark brown), especially the head and thorax, and with much paler legs but darker antennae, normally with only 2 pairs of microsetae between the postocular setae, sense cones on antenna VI about attaining the middle of segment VII, antenna VI more narrowed to base where it is only 10 μ in diameter, forewing lighter in color and its hind vein usually with fewer setae, interocellar setae distinctly outside the ocellar triangle (when closest together they are exteriorly tangent to a line tangent to the outside margins of lateral and median ocelli); comb on tergum VIII either absent or confined to 2-3 teeth on each side, these on triangle bases, between these teeth the margin often showing a series of irregular, broadly transversely rectangular small plates; sculpture of abdominal terga extending entirely across median areas. In the male the glandular area on sternum IV measures 16 (—18) by 52 (—74).